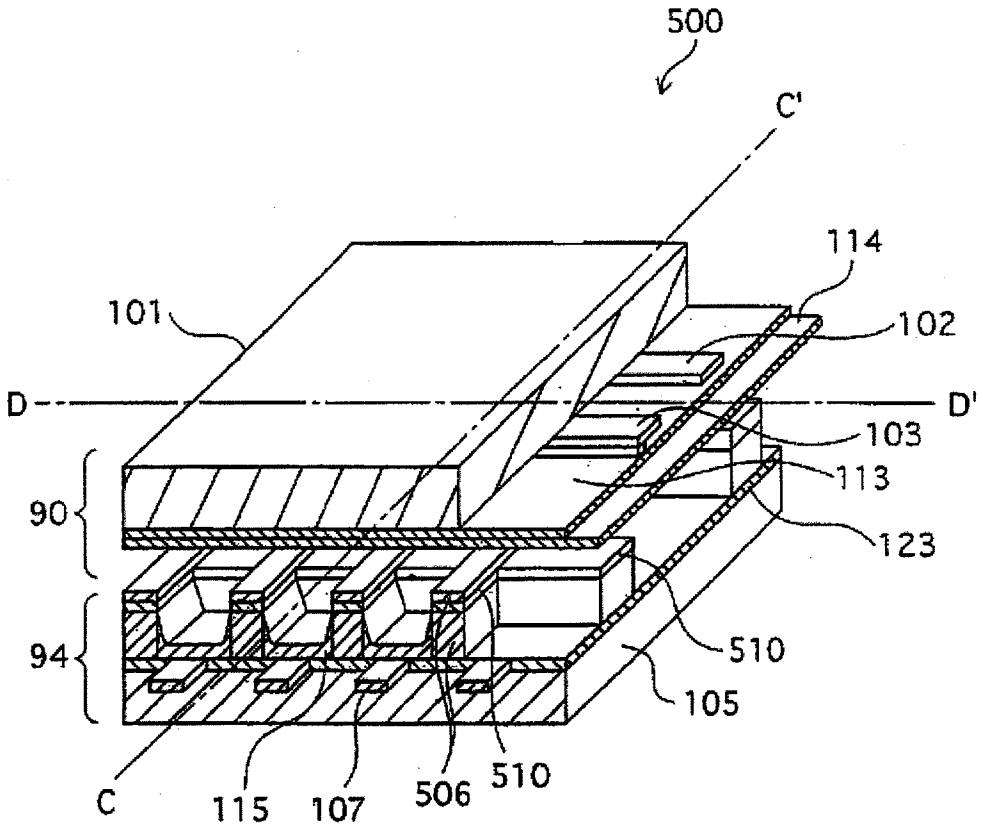
REMARKS

The present invention provides a guide electrode which can be seen, for example, in Figures 4, 5A and 5B wherein the fourth electrode is inserted within the barrier rib at a certain distance in the direction of the height from the inside surface of the front plate within the barrier ribs and exposed on a side of discharge cell.



As can be seen above the guide electrode (510) as set forth in our current claims is a fourth electrode that has been formed by a layering of a conductive material then capped by a final top of an insulative barrier rib so that it is exposed on a side wall of the cell. Cross talk is thereby prevented because of the location of the guide electrode at the upper half of the barrier rib to help control and prevent any cross talk across the top surface of the barrier rib. As can be

appreciated, noise which can occur when the wall charge is not strong enough to discharge can be prevented by a discharge from the guide electrode thereby increasing a high luminous efficiency while still enabling an addressing of a conventional driving method for an AC type PDP. See our disclosure, for example, on Page 22 line 7-26.

These features are set forth in our claims and more than adequately supported by our specification. As noted, our barrier rib is described as an insulative material and can be composed of a parallel part which is parallel to the address electrode and an orthogonal part which is at right angles to the address electrode. See Figures 5A and 5B.

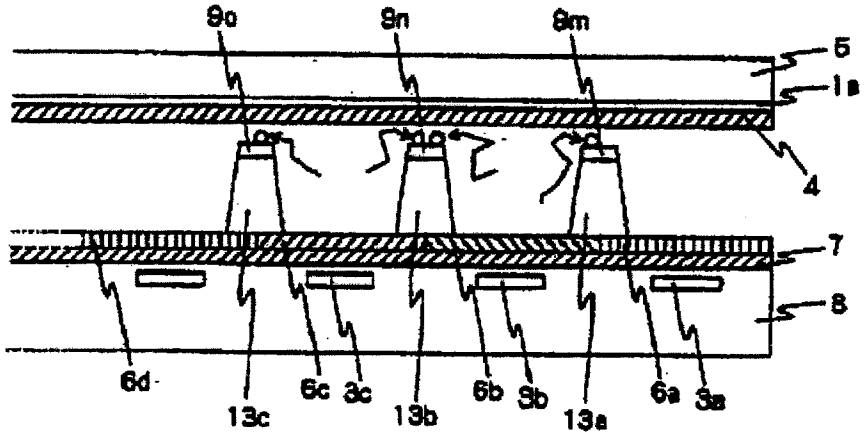
In summary, since our fourth electrode can be inserted within the barrier ribs that are made of a non-conductive material and there is no conductive material around them, the fourth electrodes can affect the discharge caused within the discharge cells. As a result, the state of the discharge can vary, depending on the position of the first distance from the first substrate. Thus, it is possible to not only prevent the cross talk problem but also to stabilize an address discharge to improve luminous efficiency.

The Office Action rejected claims 1, 4 and 22 as being obvious over the Shibata et al. Japanese Publication No. 11-120919 in view of the Akiba US Patent No. 6,873,105.

The Office Action contended that the Shibata et al. reference taught fourth electrodes, which are elements number 9, fixed to the barrier ribs and exposed to the discharge spaces with the electrodes being "inserted in the barrier ribs". As can be seen, however, in the cited Figure 3, the conductive or asserted fourth electrode teaching of the Shibata et al. references are positioned at the top of the respective barrier ribs 13. See also the cross sectional view shown in Figure 4. They are not inserted within the barrier rib but rather are layered above the barrier rib.

【図4】

図 4



As can be seen above, the elements 9o, 9n, and 9m represent a layer at the top of the barrier ribs or septa 13a, 13b, and 13c as defined in Paragraph 24 of the Shibata et al. disclosure.

> [0024] (Example 2) Next, the plasma display panel which is the 2nd example of this invention is explained. The plasma display panel of this example is shown in drawing 3. The plasma display panel of this example is what formed the septa 13a-13c of a bank-like dielectric in the fluorescent substances [6a-6d] boundary, and has applied the conductive material 9m, 9n, and 9o to the upper part of Septa 13a-13c, respectively in order to separate a fluorescence color.

The Akiba reference was cited for teaching an electrode in the barrier rib. As can be seen, however, from Figure 5 and Figure 1, Akiba teaches what is described as a metal "electrode" formed as a lattice like metal laminate with the main feature being the projections 30 that are directed towards the cell space side to in effect channel or condense and facilitate the electric field to be intensified at the points of the projections 30. See the structure in Figure 2.

As seen in Figure 5, the fluorescence material is coated on the exterior surface of an oxide film 72. See Col. 5, line 30. The projections 32 are to concentrate the electric force between the second display electrode and the electrode, when a sustain pulse voltage is applied. See Col. 6, line 23-29. Purportedly this permits an application of a lower discharge voltage.

The desired configuration of the projection is described in Col. 7, at line 14-20 as follows:

> Particularly in the case of the projection shown in FIG. 9B, it is easy to form a film provided on the outside of a metal electrode, for example, dielectric layer or fluorescent layer, having an even thickness, and excessive concentration of the line of electric force at the projection is prevented and the withstand voltage of an electrode can be improved. (underline added)

Although the terminology "electrode" is broadly utilized for the laminated three metal sheets, there does not appear to be any teaching of an active charge being applied to increase luminous efficiency but only a suggestion of a grounding of this fourth electrode. The Akiba reference does not teach an exposure of its grounded electrode to the discharge space but rather teaches pointed projections buried in a dielectric layer or fluorescent layer to focus or intensify the applied electrode field directed towards the cells.

The Shibata et al. reference only discloses conductive material on the top of the barrier ribs.

While the Office Action asserts that the two references could be combined, there is still a requirement under the recent Supreme Court case of KSR International Co. to articulate an explicit reason that would prompt a person of ordinary skill to combine the elements in the way the claimed invention requires.

> It is the Examiner's burden to establish *prima facie* obviousness. *See In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993) Obviousness requires a

> suggestion of all the elements in a claim *(CFMT, Inc. v. Yieldup Int'l Corp.,* 349 F.3d 1333, 1342 (Fed. Cir. 2003)) and "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). Here, we find that the Examiner has not identified all the elements of claim 1, nor provided a reason that would have prompted the skilled worker to have arranged them in the manner necessary to reach the claimed invention.
>
> *Ex parte* Karoleen B. Alexander, No. 2007-2698, slip op. at 6 (B.P.A.I. Nov. 30, 2007)

Claims 5-6 and 17 were rejected over Shibata et al. in view of Akiba when further taken in view of the Yoshida et al. US Patent No 6,482,722.

Yoshida et al. was basically cited for its teaching in Figure 1 of disclosing an orthogonal arrangement of barrier ribs to divide the discharge gas space. The Office Action contended that the Shibata et al. reference would then be capable of teaching the location of electrodes fixed to the barrier ribs, presumably those electrodes being as taught by Shibata et al. at the top surface of the barrier ribs. It is respectfully submitted, however, that there would be such a significant changing in the functions of these respective references that they would not meet the required standards of the KSR International case.

As noted in the MPEP at §2143.02:

> A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.,* 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ 449, 453 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 62-63, 163 USPQ 673, 675 (1969); *Great Atlantic & P. Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152, 87 USPQ 303, 306 (1950). (underline added)

Finally, the Sato et al. US Patent No. 4,423,356 was combined with the Shibata et al. and Akiba references to reject claims 7-9 and 11-12.

Sato et al. was cited for teaching a fourth electrode connected to a driving circuit. Sato et al. actually taught, as can be seen in the cross section of Figure 6B, charge leak layers $11W_a$, $11W_b$, $11E_a$ and $11E_b$ to act as charge leak conductors on the substrate or on top of the barrier walls. It is respectfully submitted that such teaching does not meet the requirements as set forth in our current claims.

Claims 13-14, 18-19 and 21 were further rejected over a combination of each of these four references, namely, the Shibata et al., Sato et al., Akiba and Yoshida et al. references, under 35 USC § 103.

For the above reasons, however, the likelihood of this combination being found obvious to a person of ordinary skill in the art, with all do respect, would be suggestive of the use of hindsight from the teachings of our present application.

The Federal Circuit has addressed this issue in the case of *In re Rouffet*, 47 U.S.P.Q.2d 1453, 149 F.3d 1350 (Fed. Cir. 1998). In *Rouffet*, the Court noted that virtually all inventions are combinations of old elements. It concluded that:

> an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.' *Id.* at 1357.

The present claims are even further distinguishable in defining a plasma display panel from, for example, Figures 4, 5, and 6 of the Akiba disclosure in which the electrodes intersect at right angles in the same substrate. As set forth in our amended Claim 1, no electrodes intersect at right angles in the same substrate. This provides a different construction of a plasma display panel than that taught by the Akiba reference. More particularly, our amended Claim 1 defines one of the first and second electrodes as the X electrode and the other as the Y electrode. The third electrode, which is the address electrode, is independently disposed on a substrate that is different from the substrate in which the other electrodes are disposed. As a result, an address discharge is caused across the discharge space. The Akiba reference has the address electrode and the Y electrode disposed on the same substrate and the address electrode discharge is not caused across the discharge space. This is significantly different in construction and operation.

In addition, the Akiba has barrier ribs formed in a lattice shape by laminating metal sheets having a plurality of holes that are irregularly arranged. Since the barrier ribs are actually part of the laminated metal sheet it would not be possible to insert a fourth electrode since in essence the entire barrier rib would be conductive, as seen, for example, in the cross sectional view of Figure 5. The Shibata et al. and the Akiba reference were the primary references upon which the present rejection was formulated to purportedly render obvious our invention to a person of ordinary skill in the field.

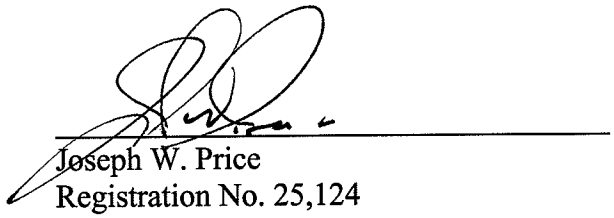
It is believed that the above comments, relative to the amended claims, more than adequately discloses not only the novelty and the advantages of the present invention, but the non-obviousness to a person of ordinary skill in the field.

It is believed that the case is now in condition for allowance and an early notification of the same is requested.

If the Examiner believes a telephone interview will assist in the prosecution of this matter, the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

SNELL & WILMER L.L.P.



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